

# California: From Gold Rush To Green Rush

by Sharon H. Fitzgerald DOWN TO BUSINESS

- \* In March, Germany will host CeBIT 2009, the world's largest annual trade fair for digital, information and communication technologies. For the first time, the CeBIT host nation isn't partnering with another country; the partner is California, which will spotlight numerous innovative technologies and research initiatives.
- \* Californians passed Proposition 71 in 2004, devoting \$3 billion in obligation bonds to finance up to \$350 million a year for research and development of human embryonic stem cells. The measure put California at the forefront of the field.
- \* California is home to 12 cargo airports and 11 cargo seaports. There are 18 foreign trade zones and 42 enterprise zones. They're all connected by more than 15,000 miles of highways and freeways.
- \* The ports of Los Angeles, Long Beach and Oakland are among the busiest in the United States, together moving twice the goods as the Port of New York City. Each year, more than \$200 billion in imports pass through California's ports.

#### **OUTDOORS AND RECREATION**

Ready for fun? California's natural and scenic beauty is where California shines. There are 24 national parks, 272 state parks, 1,100 miles of coastline and numerous wilderness areas. The California Gold Rush in the mid-19th century was economic development at warp speed, resulting in California statehood just two years after gold was discovered in Coloma in 1848. Today, Gov. Arnold Schwarzenegger is orchestrating the California Green Rush and anticipating another Golden State surge.

"The Gold Rush was when California began its economic ascendancy," says Brian McGowan, the state's deputy secretary for economic development and commerce. "Now we're taking the lead in environmental technologies." Since 1990, green business — solar technology, alternative-fuel vehicles, energy-efficient products and buildings — has grown by 84 percent in California, and employment in the wide-ranging sector has doubled. California companies lead the nation in clean technology venture capital and investment, and the state's greenhouse-emission standards are the toughest in the country. California's statewide green building code for both public and private buildings is aimed at reducing electricity needs and creating more energy-efficient structures.

"Studies show that economies that green themselves grow at a faster rate than those that do not," McGowan says. "California actually has one of the lowest per capita greenhouse-gas emissions and

the highest gross-domestic products of any state in the nation, which proves that the greener you go the faster your economy grows."

California's tax policies and incentives encourage green growth. The Alternative Energy and Advanced Transportation Financing Authority program offers manufacturing tax credits to companies that build zero-emission vehicles. The Alternative and Renewable Fuel and Vehicle Technology Program offers incentives to develop new fuel technologies. Gov. Schwarzenegger's Million Solar Roofs Initiative provides funding and support for the installation of solar energy systems on new and existing residential and commercial buildings and a 7.5 percent tax credit for every dollar spent on a solar system. In September 2008, Gov. Schwarzenegger signed a bill creating a Green Collar Jobs Council, focusing job-training dollars to prepare a green-technology workforce.

#### INDUSTRIES AND INNOVATIONS

Gov. Schwarzenegger refers to California as a "nation state" with the eighth-largest economy in the world. Nine distinct economic regions boast their own character and business specialties. For example, biotechnology is king in San Diego and San Francisco. In the Central Valley, the focus is on agricultural technology, and Los Angeles, of course, is an entertainment hotbed. Silicon Valley is known worldwide for its high-technology prowess, home to success stories such as Hewlett-Packard, Netscape, Amazon.com, Yahoo and eBay.

"California is known for innovation," McGowan says. "We feel that innovation is our competitive advantage, and innovation is what drives economic growth. Focusing our attention on the higher-tech industries helps all companies and all industries in California." He cites biosciences, information technology, computers and semiconductors, telecommunications and aerospace as prominent clusters. In California's Mohave Desert, 80 miles north of Los Angeles, Scaled Composites LLC developed SpaceShipOne with the goal of privately funded manned spaceflight. NASA also recognizes California's aerospace competency, with three NASA research centers in the state.

Yuba County, north of Sacramento, also looks to the skies to build an economic sector. In the county is the California Innovation Center, which "focuses primarily on autonomous technology initially related to things that fly," says John Fleming, Yuba County economic development coordinator. "We're hoping that serves as a catalyst. We believe we have the academic strength, the graduates, the supercomputers, Silicon Valley, the assets here in Northern California that would support this type of activity."

The center operates in partnership with Beale Air Force Base, one of the area's major economic drivers. The base houses the unmanned aerial reconnaissance Global Hawk and U2 aircraft missions and is in the running as the headquarters location for Cyber Command, an electronic initiative to protect American computer systems and assets.

In Irvine, alongside Interstate 5 south of Los Angeles, high-tech business clusters such as life sciences, automotive design and even video-game development are thriving. "We're looking for talent-based companies across industry lines, companies whose products contain a lot of intellectual property — in short, companies whose success is built on brain power," says Gary Bingham, vice president of business and economic development, Irvine Chamber of Commerce.

## TALENT AND EDUCATION

California's workforce is bolstered by nearly 1 million high-tech workers, more than any other state. One reason for that prominence is an unparalleled higher-education structure. More than 2.3 million students are enrolled in about 300 California colleges and universities, which graduate 270,000 students every year.

The City of Industry provides access to several higher education institutions, including Cal Poly Pomona. The city is bordered by nine different communities, "which provide any level of employment desired by our 2,500 companies," writes Don Sachs, executive director, City of Industry Manufacturers Council, in an e-mail correspondence. "Our daily workforce is approximately 80,000."

Research centers and institutes on campuses statewide nurture discovery in wide-ranging topics, from biotechnology and genomics to advanced information systems, from earthquake engineering to fuel cells, from climate change to cancer. Research and development expenditures at universities and colleges totaled \$6.49 billion in fiscal year 2006, the latest figures available. Industrial R&D totaled \$50.6 billion, ranked first in the nation. California offers a 24 percent R&D tax credit to businesses

For some California communities, higher education is big business. Riverside, west of Los Angeles, capitalizes on four higher-learning institutions in the community, where nearly 50,000 students are enrolled.

In July 2008, the University of California Board of Regents paved the way for the state's first new public medical school in more than four decades. The location? Riverside. The first incoming class of 50 students is projected to enroll in 2012. "We're viewing this as the catalyst for not only life science and biotech companies, but also other medical-service providers and specialty services and having the ripple effect of business attraction and business development," says Tricia Hinckley, Riverside economic development manager.

Nearby Ontario is focusing its energies on workforce development. American Career College and West Coast University operate a dual-college campus in Ontario, pooling its resources to offer a variety of courses, mostly health-care related, including optical dispensing, medical assistant, pharmacy technician, medical biller and vocational nursing. The city's CareerQuest.tv Web site was created to keep the workforce informed of job opportunities available in San Bernardino County.

## **ASSETS**

Keeping California moving is a priority of Gov. Schwarzenegger. That means an unprecedented investment in California's infrastructure.

"Back in the 1950s, '60s and '70s, building infrastructure was the job of the federal government," McGowan says. "Now the federal government is not funding infrastructure at those levels, so a lot of states are scrambling to figure out what they're going to do. We passed a \$20 billion transportation bond to rebuild California's infrastructure." While some funds are designated toward port improvements, most is dedicated to highway and railway improvement. About \$5 billion has been spent so far.

This funding is important to logistics efforts, such as those in the City of Industry, which is a unique business community, which features no residential zoning. The city is zoned at 82 percent industrial and 8 percent commercial. It is 12 miles long, with the Pomona freeway spanning the entire length on the southern border. Sachs notes the city is bordered by four freeways. It also provides access to the

Los Angeles International Airport, which is 40 miles away; and the Ports of Long Beach and Los Angeles, which are 41 miles away.

"The city is friendly to business, and can turn a use permit around in one week," Sachs writes. "There is no city license requirement."

## LIFESTYLE

Google the phrase "California lifestyle," and it's apparent why the state's population exceeds 36.4 million people. The millennial generation, those born since 1980, flock to the West Coast for abundant sunshine, beaches and mountains, big-city cultural amenities and nightlife, award-winning wines and a work ethic that rewards originality.

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